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SEQUENCE LISTING



<110> Grainger, David J.
Tatalick, Lauren Marie

<120> Compounds and methods to inhibit or
augment an inflammatory response.

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<140> US 08/927939

<141> 1997-09-11

<160> 85

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 Thr Cys Cys Tyr Asn Phe Thr Asn Arg Lys Ile Ser Val Gln Arg Leu
 35 40 45
 Ala Ser Tyr Arg Arg Ile Thr Ser Ser Lys Cys Pro Lys Glu Ala Val
 50 55 60
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 65 70 75 80
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 Pro Lys Thr

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 Thr Asn Ile Gln Cys Pro Lys Glu Ala Val Ile Phe Lys Thr Lys Arg
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 Gly Lys Glu Val Cys Ala Asp Pro Lys Glu Arg Trp Val Arg Asp Ser
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Met Lys His Leu Asp Gln Ile Phe Gln Asn Leu Lys Pro
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 Thr Cys Cys Tyr Arg Phe Ile Asn Lys Lys Ile Pro Lys Gln Arg Leu
 35 40 45
 Glu Ser Tyr Arg Arg Thr Thr Ser Ser His Cys Pro Arg Glu Ala Val
 50 55 60
 Ile Phe Lys Thr Lys Leu Asp Lys Glu Ile Cys Ala Asp Pro Thr Gln
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 Lys Trp Val Gln Asp Phe Met Lys His Leu Asp Lys Lys Thr Gln Thr
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 Pro Lys Leu

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 35 40 45
 Asp Tyr Phe Glu Thr Ser Ser Gln Cys Ser Lys Pro Gly Val Ile Phe
 50 55 60
 Leu Thr Lys Arg Ser Arg Gln Val Cys Ala Asp Pro Ser Glu Glu Trp
 65 70 75 80
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 <213> Homo sapiens

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 35 40 45
 Val Asp Tyr Tyr Glu Thr Ser Ser Leu Cys Ser Gln Pro Ala Val Val
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 Cys Cys Phe Ala Tyr Ile Ala Arg Pro Leu Pro Arg Ala His Ile Lys
 35 40 45
 Glu Tyr Phe Tyr Thr Ser Gly Lys Cys Ser Asn Pro Ala Val Val Phe
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 Val Thr Arg Lys Asn Arg Gln Val Cys Ala Asn Pro Glu Lys Lys Trp
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 Val Arg Glu Tyr Ile Asn Ser Leu Glu Met Ser
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 20 25 30
 Arg Phe Phe Glu Ser His Val Ala Arg Ala Asn Val Lys His Leu Lys
 35 40 45
 Ile Leu Asn Thr Pro Asn Cys Ala Leu Gln Ile Val Ala Arg Leu Lys
 50 55 60
 Asn Asn Asn Arg Gln Val Cys Ile Asp Pro Lys Leu Lys Trp Ile Gln
 65 70 75 80
 Glu Tyr Leu Glu Lys Ala Leu Asn Lys
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 <213> Homo sapiens

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 20 25 30
 Arg Cys Gln Cys Ile Lys Thr Tyr Ser Lys Pro Phe His Pro Lys Phe
 35 40 45
 Ile Lys Glu Leu Arg Val Ile Glu Ser Gly Pro His Cys Ala Asn Thr
 50 55 60
 Glu Ile Ile Val Lys Leu Ser Asp Gly Arg Glu Leu Cys Leu Asp Pro
 65 70 75 80
 Lys Glu Asn Trp Val Gln Arg Val Val Glu Lys Phe Leu Lys Arg Ala
 85 90 95
 Glu Asn Ser

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<213> Homo sapiens

<400> 24

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20 25 30
Ala Gly Ala Ser Val Ala Thr Glu Leu Arg Cys Gln Cys Leu Gln Thr
35 40 45
Leu Gln Gly Ile His Pro Lys Asn Ile Gln Ser Val Asn Val Lys Ser
50 55 60
Pro Gly Pro His Cys Ala Gln Thr Glu Val Ile Ala Thr Leu Lys Asn
65 70 75 80
Gly Arg Lys Ala Cys Leu Asn Pro Ala Ser Pro Ile Val Lys Lys Ile
85 90 95
Ile Glu Lys Met Leu Asn Ser Asp Lys Ser Asn
100 105

<210> 25

<211> 97

<212> PRT

<213> Homo sapiens

<400> 25

Met Lys Val Ser Ala Ala Leu Leu Trp Leu Leu Leu Ile Ala Ala Ala
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Phe Ser Pro Gln Gly Leu Ala Gly Pro Ala Ser Val Pro Thr Thr Cys
20 25 30
Cys Phe Asn Leu Ala Asn Arg Lys Ile Pro Leu Gln Arg Leu Glu Ser
35 40 45
Tyr Arg Arg Ile Thr Ser Gly Lys Cys Pro Gln Lys Ala Val Ile Phe
50 55 60
Lys Thr Lys Leu Ala Lys Asp Ile Cys Ala Asp Pro Lys Lys Lys Trp
65 70 75 80
Val Gln Asp Ser Met Lys Tyr Leu Asp Gln Lys Ser Pro Thr Pro Lys
85 90 95
Pro

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<211> 148

<212> PRT

<213> Mus musculus

<400> 26

Met Gln Val Pro Val Met Leu Leu Gly Leu Leu Phe Thr Val Ala Gly
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20 25 30
Thr Cys Cys Tyr Ser Phe Thr Ser Lys Met Ile Pro Met Ser Arg Leu
35 40 45
Glu Ser Tyr Lys Arg Ile Thr Ser Ser Arg Cys Pro Lys Glu Ala Val
50 55 60
Val Phe Val Thr Lys Leu Lys Arg Glu Val Cys Ala Asp Pro Lys Lys
65 70 75 80
Glu Trp Val Gln Thr Tyr Ile Lys Asn Leu Asp Arg Asn Gln Met Arg
85 90 95
Ser Glu Pro Thr Thr Leu Phe Lys Thr Ala Ser Ala Leu Arg Ser Ser
100 105 110
Ala Pro Leu Asn Val Lys Leu Thr Arg Lys Ser Glu Ala Asn Ala Ser
115 120 125

Thr Thr Phe Ser Thr Thr Thr Ser Ser Thr Ser Val Gly Val Thr Ser
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 Val Thr Val Asn
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 Leu Cys Leu Leu Leu Met Thr Ala Ala Phe Asn Pro Gln Gly Leu Ala
 10 15 20

cag cca gat gca ctc aac gtc cca tct act tgc tgc ttc aca ttt agc 150
 Gln Pro Asp Ala Leu Asn Val Pro Ser Thr Cys Cys Phe Thr Phe Ser
 25 30 35

agt aag aag atc tcc ttg cag agg ctg aag agc tat gtg atc acc acc 198
 Ser Lys Lys Ile Ser Leu Gln Arg Leu Lys Ser Tyr Val Ile Thr Thr
 40 45 50 55

agc agg tgt ccc cag aag gct gtc atc ttc aga acc aaa ctg ggc aag 246
 Ser Arg Cys Pro Gln Lys Ala Val Ile Phe Arg Thr Lys Leu Gly Lys
 60 65 70

gag atc tgt gct gac cca aag gag aag tgg gtc cag aat tat atg aaa 294
 Glu Ile Cys Ala Asp Pro Lys Glu Lys Trp Val Gln Asn Tyr Met Lys
 75 80 85

cac ctg ggc cgg aaa gct cac acc ctg aag act tgaactctgc taccctact 347
 His Leu Gly Arg Lys Ala His Thr Leu Lys Thr
 90 95

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 Met Asn Ala Lys Val Val Val Val Leu Val Leu
 1 5 10

gtg ctg acc gcg ctc tgc ctc agc gac ggg aag ccc gtc agc ctg agc 160
 Val Leu Thr Ala Leu Cys Leu Ser Asp Gly Lys Pro Val Ser Leu Ser
 15 20 25

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 Tyr Arg Cys Pro Cys Arg Phe Phe Glu Ser His Val Ala Arg Ala Asn
 30 35 40

gtc aag cat ctc aaa att ctc aac act cca aac tgt gcc ctt cag att 256
 Val Lys His Leu Lys Ile Leu Asn Thr Pro Asn Cys Ala Leu Gln Ile
 45 50 55

gta gcc cgg ctg aag aac aac aac aga caa gtg tgc att gac ccg aag 304
 Val Ala Arg Leu Lys Asn Asn Asn Arg Gln Val Cys Ile Asp Pro Lys
 60 65 70 75

cta aag tgg att cag gag tac ctg gag aaa gct tta aac aag agg ttc 352
 Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn Lys Arg Phe
 80 85 90

aag atg tgagagggtc agacgcctga ggaaccctta cagtaggagc ccagctctga 408
 Lys Met

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61
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 Met Asn Pro Ser Ala Ala Val Ile
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 ggaacgaaga agggagaaga gggagaaaag gaggagggag gaggaagaag gagggaagag 2380
 agagtcagga gaaagggcga aagagtggga tggggtaagg catggatgcc tccttgcttg 2440
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 tctctccaca gatcagacag ggtctgctaa acactacctc atccatttta agtgcctaaa 2620
 atgaaaccgt gtgctgacct tcctggctct cccctctctt tcctgcag gg atc cct 2676
 Gly Ile Pro

ctc gca agg acg gtc cgc tgc aac tgc atc cat atc gat gac ggg cca 2724
 Leu Ala Arg Thr Val Arg Cys Asn Cys Ile His Ile Asp Asp Gly Pro
 25 30 35

gtg aga atg agg gcc ata ggg aag ctt gaa atc atc cct gcg agc cta 2772
 Val Arg Met Arg Ala Ile Gly Lys Leu Glu Ile Ile Pro Ala Ser Leu
 40 45 50 55

tcc tgc cca cgt gtt gag atc at gtgagtacaa gccacctgc cgataaacgt 2825
 Ser Cys Pro Arg Val Glu Ile Ile
 60

ccctcccgta accacacagt aaataagtga gggaaaccag gaaagatggg gacgggtctg 2885
 tgactctaac taaggcacag tgcctgaact ctgacatgga cctgcagggc catcagctct 2945
 gttggcctga cgtaaatctg agtatctcac tcttatttct atag t gcc acg atg 2999
 Ala Thr Met
 65

aaa aag aat gat gag cag aga tgt ctg aat ccg gaa tct aag acc atc 3047
 Lys Lys Asn Asp Glu Gln Arg Cys Leu Asn Pro Glu Ser Lys Thr Ile
 70 75 80

aag aat tta atg aaa gcg ttt agc caa aaa ag gtaggtttga tgttgctttt 3099
 Lys Asn Leu Met Lys Ala Phe Ser Gln Lys Arg
 85 90

tcaggaaatg gtggtctggg gagcagcgcc tgccctgggc tttgctgtgg gcatctgccc 3159
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 Ser Lys Arg Ala Pro
 95

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 aaaagacaat gtactgtatt gaaagtagta agagacccaa aatgtaataa agtaataata 4226
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 <212> DNA
 <213> Homo sapiens

<220>
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 <222> (43) ... (363)

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 Met Ala Arg Ala
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acg ctc tcc gcc gcc ccc agc aat ccc cgg ctc ctg cgg gtg gcg ctg 102
 Thr Leu Ser Ala Ala Pro Ser Asn Pro Arg Leu Leu Arg Val Ala Leu
 5 10 15 20

ctg ctc ctg ctc ctg gtg gcc gcc agc cgg cgc gca gca gga gcg ccc 150
 Leu Leu Leu Leu Val Ala Ala Ser Arg Arg Ala Ala Gly Ala Pro
 25 30 35

ctg gcc act gaa ctg cgc tgc cag tgc ttg cag acc ctg cag gga att 198
 Leu Ala Thr Glu Leu Arg Cys Gln Cys Leu Gln Thr Leu Gln Gly Ile
 40 45 50

cac ctc aag aac atc caa agt gtg aag gtg aag tcc ccc gga ccc cac 246
 His Leu Lys Asn Ile Gln Ser Val Lys Val Lys Ser Pro Gly Pro His
 55 60 65

tgc gcc caa acc gaa gtc ata gcc aca ctc aag aat ggg cag aaa gct 294
 Cys Ala Gln Thr Glu Val Ile Ala Thr Leu Lys Asn Gly Gln Lys Ala
 70 75 80

tgt ctc aac ccc gca tgc ccc atg gtt aag aaa atc atc gaa aag atg	342
Cys Leu Asn Pro Ala Ser Pro Met Val Lys Lys Ile Ile Glu Lys Met	
85 90 95 100	

ctg aaa aat ggc aaa tcc aac tgaccagaag gaaggaggaa gcttattggt	393
Leu Lys Asn Gly Lys Ser Asn	
105	

ggctgttcct gaaggaggcc ctgcccttac aggaacagaa gaggaaagag agacacagct	453
gcagaggcca cctggattgc gcctaattgtg tttgagcatc acttaggaga agtcttctat	513
ttattttattt atttatttat ttgtttgttt tagaagattc tatgttaata ttttatgtgt	573
aaaataaggt tatgattgaa tctacttgca cactctccca ttatatttat tgtttatttt	633
aggtcaaacc caagtttagtt caatcctgat tcatatttaa tttgaagata gaaggtttgc	693
agatattctc tagtcatttg ttaatatattc ttcgtgatga catatcacat gtcagccact	753
gtgatagagg ctgaggaatc caagaaaatg gccagtgaga tcaatgtgac ggcagggaaa	813
tgtatgtgtg tctattttgt aactgtaaag atgaatgtca gttgttattt attgaaatga	873
tttcacagtg tgtggtcaac atttctcatg ttgaagcttt aagaactaaa atgttctaaa	933
tatcccttgg acattttatg tctttcttgt aaggcatact gccttggtta atgttaatta	993
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 <211> 1173
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (107)...(448)

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cccagttcag gaaccgcgca ccgctcgcag cgctctcttg accact atg agc ctc	115
Met Ser Leu	
1	

ctg tcc agc cgc gcg gcc cgt gtc ccc ggt cct tgc agc tcc ttg tgc	163
Leu Ser Ser Arg Ala Ala Arg Val Pro Gly Pro Ser Ser Ser Leu Cys	
5 10 15	

gcg ctg ttg gtg ctg ctg ctg ctg ctg acg cag cca ggg ccc atc gcc	211
Ala Leu Leu Val Leu Leu Leu Leu Leu Thr Gln Pro Gly Pro Ile Ala	
20 25 30 35	

agc gct ggt cct gcc gct gct gtg ttg aga gag ctg cgt tgc gtt tgt	259
Ser Ala Gly Pro Ala Ala Ala Val Leu Arg Glu Leu Arg Cys Val Cys	
40 45 50	

tta cag acc acg cag gga gtt cat ccc aaa atg atc agt aat ctg caa	307
Leu Gln Thr Thr Gln Gly Val His Pro Lys Met Ile Ser Asn Leu Gln	
55 60 65	

gtg ttc gcc ata ggc cca cag tgc tcc aag gtg gaa gtg gta gcc tcc	355
Val Phe Ala Ile Gly Pro Gln Cys Ser Lys Val Glu Val Val Ala Ser	
70 75 80	

ctg aag aac ggg aag gaa att tgt ctt gat cca gaa gcc cct ttt cta	403
Leu Lys Asn Gly Lys Glu Ile Cys Leu Asp Pro Glu Ala Pro Phe Leu	
85 90 95	

aag aaa gtc atc cag aaa att ttg gac ggt gga aac aag gaa aac 448
 Lys Lys Val Ile Gln Lys Ile Leu Asp Gly Gly Asn Lys Glu Asn
 100 105 110

tgattaagag aaatgagcac gcatggaaaa gtttcccagt ctacagcaga gaagttttct 508
 ggaggtctct gaacccaggg aagacaagaa ggaaagattt tgttggtgtt tgtttatttg 568
 gtttcccag tagttagctt tcttccctgg attcctcact tttgaagagt gtgaggaaaa 628
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 gatgtttcaa aaggaatcct gtgatggaaa tacaactggg atcttcactt ttttaggaat 928
 tgggaaatat ttaattgttt cttggggaat atgttagaga attcccttac tcttgattgt 988
 gggatactat ttaattattt cactttagaa agctgagtggt ttcacacctt atctatgtag 1048
 aatatatttc cttattcaga attttctaaaa gtttaagtgc tatgagggtt aatatcttat 1108
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 aaaaa 1173

<210> 33
 <211> 825
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (34)...(327)

<400> 33
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 Met Lys Val Ser Ala Val Leu
 1 5

ctg tgc ctg ctg ctc atg aca gca gct ttc aac ccc cag gga ctt gct 102
 Leu Cys Leu Leu Leu Met Thr Ala Ala Phe Asn Pro Gln Gly Leu Ala
 10 15 20

cag cca gat gca ctc aac gtc cca tct act tgc tgc ttc aca ttt agc 150
 Gln Pro Asp Ala Leu Asn Val Pro Ser Thr Cys Cys Phe Thr Phe Ser
 25 30 35

agt aag aag atc tcc ttg cag agg ctg aag agc tat gtg atc acc acc 198
 Ser Lys Lys Ile Ser Leu Gln Arg Leu Lys Ser Tyr Val Ile Thr Thr
 40 45 50 55

agc agg tgt ccc cag aag gct gtc atc ttc aga acc aaa ctg ggc aag 246
 Ser Arg Cys Pro Gln Lys Ala Val Ile Phe Arg Thr Lys Leu Gly Lys
 60 65 70

gag atc tgt gct gac cca aag gag aag tgg gtc cag aat tat atg aaa 294
 Glu Ile Cys Ala Asp Pro Lys Glu Lys Trp Val Gln Asn Tyr Met Lys
 75 80 85

cac ctg ggc cgg aaa gct cac acc ctg aag act tgaactctgc taccctact 347
 His Leu Gly Arg Lys Ala His Thr Leu Lys Thr
 90 95

gaaatcaagc tggagtacgt gaaatgactt ttccattctc ctctggcctc ctcttctatg 407
 ctttgaata cttctacat aattttcaaa taggatgcat tcggttttgt gattcaaaat 467
 gtactatgtg ttaagtaata ttggctatta tttgacttgt tgctggtttg gagtttattt 527
 gagtattgct gatcttttct aaagcaaggc cttgagcaag taggttgctg tctctaagcc 587
 cccttccctt ccactatgag ctgctggcag tgggttgat tcggttccca ggggttgaga 647
 gcatgcctgt gggagtcag gacatgaagg gatgctgcaa tgtaggaagg agagctcttt 707

gtgaatgtga	ggttgttgc	aaattattgt	ttattgtgga	aagatgaatg	caatagtagg	767
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<210> 34
 <211> 3112
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1192) ... (1267)

<221> CDS
 <222> (1953) ... (2067)

<221> CDS
 <222> (2488) ... (2575)

<400> 34

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atggctccat	atttgggttg	tttccacaga	actctttccc	agaaatgctt	tttctaggtt	180
aatggctaca	catattttcta	ggcacctgac	atactgacac	ccacctctaa	agtattttta	240
tgatccacaa	ctagcggtta	acacagcgcc	ccagtcactc	cgagactaat	aaatagacaa	300
atgactgaaa	cgtgacctca	tgctttctat	tcctccagct	ttcattgagt	tcctttcctc	360
tgggaggact	gggggttgct	tagccctcca	cagcatcagc	ccattgaccc	tatccttgtg	420
gttatagcag	ctgaggaagc	agaattacag	ctctgtggga	aggaatgggg	ctggagagtt	480
catgcataga	ccaattcttt	tttttttttt	tttttgagat	ggagtttcac	ttttgttgcc	540
caggctggag	tgcaatggca	tgatctcagc	tcaccacagc	ccccacctcc	tgggttcaa	600
cgattctcct	gccctcagcc	tcccagtagt	ctgggattac	aggcatgtgc	caccacgcct	660
gactactttt	gtatttttag	tagagatgga	gtttctcttt	cttggtcagg	ttggtotcaa	720
actcctgacc	tcaggtgate	cgcagcctcg	gcctcccaaa	gtgttgggat	tacaggtgtg	780
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tcattgagttg	agagctgaga	gttagagagt	agctcagaga	tgctattctt	ggatatcctg	960
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aaagaggaga	gatggcttca	gacatcagaa	ggacgcaggc	agcaaagagt	agtcagtcctc	1140
ttcttggctc	tgctgacact	cgagcccaca	ttccatcacc	tgctcccaat	c atg cag	1197
					Met Gln	
					1	

gtc tcc act gct gcc ctt gcc gtc ctc ctc tgc acc atg gct ctc tgc	1245
Val Ser Thr Ala Ala Leu Ala Val Leu Leu Cys Thr Met Ala Leu Cys	
5 10 15	

aac cag gtc ctc tct gca cca c gtgagtcctat gttgttgttg tgggtatcac	1297
Asn Gln Val Leu Ser Ala Pro	
20 25	

cactctcttg	ccatgggttag	accacatcag	tctttttttg	cggcctgaga	gccccgaaga	1357
gaaaagaagg	aagttcttaa	agcgtgcca	aacaccttgg	tctttttctt	cacaactttt	1417
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aggggaaaga	ggaatataga	cagaaacaaa	gagacatttc	tctgcaaaac	cccccaaatg	1837
ccttgacgtc	acttgggtctg	agcaagcctg	ccctcctcaa	ccactcaggg	atcagaagct	1897
gcctggcctt	ttcttctgag	ctgtgactcg	ggcttattct	ctcctttctc	cgcag tt	1954
					Leu	

gct gct gac acg ccg acc gcc tgc tgc ttc agc tac acc tcc cga cag 2002
Ala Ala Asp Thr Pro Thr Ala Cys Cys Phe Ser Tyr Thr Ser Arg Gln
30 35 40

att cca cag aat ttc ata gct gac tac ttt gag acg agc agc cag tgc 2050
Ile Pro Gln Asn Phe Ile Ala Asp Tyr Phe Glu Thr Ser Ser Gln Cys
45 50 55

tcc aag ccc agt gtc at gtaagtgcc gtcttctctgc tcacctctag 2097
Ser Lys Pro Ser Val Ile
60

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agtgtttaac tcttctctccc ttctccacag c ttc cta acc aag aga ggc cgg 2509
Phe Leu Thr Lys Arg Gly Arg
65 70

cag gtc tgt gct gac ccc agt gag gag tgg gtc cag aaa tac gtc agt 2557
Gln Val Cys Ala Asp Pro Ser Glu Glu Trp Val Gln Lys Tyr Val Ser
75 80 85

gac ctg gag ctg agt gcc tgaggggtcc agaagcttcg aggcccagcg 2605
Asp Leu Glu Leu Ser Ala
90

acctcagtgg gcccagtggg gaggagcagg agcctgagcc ttgggaacat gcgtgtgacc 2665
tctacagcta cctcttctat ggactgggta ttgccaaaca gccacactgt gggactcttc 2725
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<211> 481
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (55) ... (333)

<400> 35
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Met
1

aag atc tcc gtg gct gcc att ccc ttc ttc ctc ctc atc acc atc gcc 105
Lys Ile Ser Val Ala Ala Ile Pro Phe Phe Leu Leu Ile Thr Ile Ala
5 10 15

cta ggg acc aag act gaa tcc tcc tca cgg gga cct tac cac ccc tca 153
Leu Gly Thr Lys Thr Glu Ser Ser Ser Arg Gly Pro Tyr His Pro Ser
20 25 30

gag tgc tgc ttc acc tac act acc tac aag atc ccg cgt cag cgg att	201
Glu Cys Cys Phe Thr Tyr Thr Tyr Lys Ile Pro Arg Gln Arg Ile	
35 40 45	

atg gat tac tat gag acc aac agc cag tgc tcc aag ccc gga att gtc	249
Met Asp Tyr Tyr Glu Thr Asn Ser Gln Cys Ser Lys Pro Gly Ile Val	
50 55 60 65	

ttc atc acc aaa agg ggc cat tcc gtc tgt acc aac ccc agt gac aag	297
Phe Ile Thr Lys Arg Gly His Ser Val Cys Thr Asn Pro Ser Asp Lys	
70 75 80	

tgg gtc cag gac tat atc aag gac atg aag gag aac tgagtgaccc	343
Trp Val Gln Asp Tyr Ile Lys Asp Met Lys Glu Asn	
85 90	

agaaggggtg gcgaaggcac agctcagaga cataaagaga agatgccaaag gccccctcct	403
ccaccacccc ctaactctca gcccagtcga ccctcttgga gcttcctcgc ttgaattaa	463
agaccactca tgctcttc	481

<210> 36
 <211> 3709
 <212> DNA
 <213> Homo sapiens

<220>
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 <222> (885)...(960)

 <221> CDS
 <222> (2149)...(2260)

 <221> CDS
 <222> (3383)...(3482)

<400> 36	
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gtggctttca cttgtttatc tgtgaattga agagaagttg cttgaggtca ggcagtgtc	180
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gattcaaatg caggtgtatc tctgttcagg tccagactct tctgccctga agcagtagta	480
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tcaaataaaa gccctcagca ttgcaggacg gcacagtggg gagctcttag cttcaccagg	840
ctcatcaaag ctgctccagg aaggcccaag ccagaccaga agac atg cag atc atc	896
Met Gln Ile Ile	

1

acc aca gcc ctg gtg tgc ttg ctg cta gct ggg atg tgg ccg gaa gat	944
Thr Thr Ala Leu Val Cys Leu Leu Leu Ala Gly Met Trp Pro Glu Asp	
5 10 15 20	

gtg gac agc aag agc a gtgagtgtgg caggcatcat tttgcttctc tctggggagg	1000
Val Asp Ser Lys Ser	
25	

gcagaaacgt ggtcagccac tctgggggtg gagcaggctt ctccttgaac tcaccaactc 1060
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 gacatgaata ctggggcaga accatgcaca tgtggtgaaa taccaaaact ggatgagcct 1840
 ttagaaacca ggctccaaaa agttttatatt tacagatggg aagtctgggg ccagggtgaa 1900
 ggcacatctt cctcagggcc actcagctgg ggtgcgggga gctcagatct gaaccccaat 1960
 cttctgactc tttacctagc cccagaacaa ggtggctgat gaggcagagc tatgccggca 2020
 ccgtctggat gtgggtcccca agccagggtt tgtcctggga ggcgtttttt tgtttgtttt 2080
 ttaaaaattg tgctacaggt gagaggttga gaaatggatg caaacatcg tctgtgttcc 2140
 tcttctag tg cag gta ccc ttc tcc aga tgt tgc ttc tca ttt gcg gag 2189
 Met Gln Val Pro Phe Ser Arg Cys Cys Phe Ser Phe Ala Glu

30 35

caa gag att ccc ctg agg gca atc ctg tgt tac aga aat acc agc tcc 2237
 Gln Glu Ile Pro Leu Arg Ala Ile Leu Cys Tyr Arg Asn Thr Ser Ser
 40 45 50 55

atc tgc tcc aat gag ggc tta at gtaagtgatc acctgctcaa tctctcccta 2290
 Ile Cys Ser Asn Glu Gly Leu Ile
 60

gagaacagaa ccccgccagc ctggaattac aagagtagac actagatgac agtattttac 2350
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 Phe Lys Leu Lys Arg Gly Lys Glu Ala Cys Ala Leu

65 70 75

gac aca gtt gga tgg gtt cag agg cac aga aaa atg ctg agg cac tgc 3467
 Asp Thr Val Gly Trp Val Gln Arg His Arg Lys Met Leu Arg His Cys
 80 85 90

ccg tca aaa aga aaa tgagcagatt tctttccatt gtgggctctg gaaaccacat 3522
 Pro Ser Lys Arg Lys
 95

ggcttcacct	gtccccgaaa	ctaccagccc	tacaccattc	cttctgccct	gcttttgcta	3582
ggtcacagag	gatctgcttg	gtcttgataa	gctatgttgt	tgcactttaa	acatttaa	3642
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cattgag						3709

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 <212> DNA
 <213> Homo sapiens

<220>
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 <222> (67)...(450)

<400> 37
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 tccacc atg agc ctc aga ctt gat acc acc cct tcc tgt aac agt gcg 108
 Met Ser Leu Arg Leu Asp Thr Thr Pro Ser Cys Asn Ser Ala
 1 5 10

aga cca ctt cat gcc ttg cag gtg ctg ctg ctt ctg tca ttg ctg ctg 156
 Arg Pro Leu His Ala Leu Gln Val Leu Leu Leu Leu Ser Leu Leu Leu
 15 20 25 30

act gct ctg gct tcc tcc acc aaa gga caa act aag aga aac ttg gcg 204
 Thr Ala Leu Ala Ser Ser Thr Lys Gly Gln Thr Lys Arg Asn Leu Ala
 35 40 45

aaa ggc aaa gag gaa agt cta gac agt gac ttg tat gct gaa ctc cgc 252
 Lys Gly Lys Glu Glu Ser Leu Asp Ser Asp Leu Tyr Ala Glu Leu Arg
 50 55 60

tgc atg tgt ata aag aca acc tct gga att cat ccc aaa aac atc caa 300
 Cys Met Cys Ile Lys Thr Thr Ser Gly Ile His Pro Lys Asn Ile Gln
 65 70 75

agt ttg gaa gtg atc ggg aaa gga acc cat tgc aac caa gtc gaa gtg 348
 Ser Leu Glu Val Ile Gly Lys Gly Thr His Cys Asn Gln Val Glu Val
 80 85 90

ata gcc aca ctg aag gat ggg agg aaa atc tgc ctg gac cca gat gct 396
 Ile Ala Thr Leu Lys Asp Gly Arg Lys Ile Cys Leu Asp Pro Asp Ala
 95 100 105 110

ccc aga atc aag aaa att gta cag aaa aaa ttg gca ggt gat gaa tct 444
 Pro Arg Ile Lys Lys Ile Val Gln Lys Lys Leu Ala Gly Asp Glu Ser
 115 120 125

gct gat taatttggtc tgtttctgcc aaacttcttt aactcccagg aagggtagaa 500
 Ala Asp

ttttgaaacc ttgattttct agagttctca tttattcagg atacctattc ttactgtatt 560
 aaaatttgga tatgtgttct attctgtctc aaaaatcaca ttttattctg agaaggttg 620
 ttaaaagatg gcagaaagaa gatgaaaata aataagcctg gtttcaaccc tct 673

<210> 38
 <211> 12
 <212> PRT
 <213> Homo sapiens

<400> 38

Gln Val Cys Ile Asp Pro Lys Leu Lys Trp Ile Gln
 1 5 10

<210> 39
 <211> 2545
 <212> DNA
 <213> Homo sapiens

<220>
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 Met Lys Lys Ser Gly
 1 5

ggt ctt ttc ctc ttg ggc atc atc ttg ctg gtt ctg att gga gtg caa 102
 Val Leu Phe Leu Leu Gly Ile Ile Leu Leu Val Leu Ile Gly Val Gln
 10 15 20

gga acc cca gta gtg aga aag ggt cgc tgt tcc tgc atc agc acc aac 150
 Gly Thr Pro Val Val Arg Lys Gly Arg Cys Ser Cys Ile Ser Thr Asn
 25 30 35

caa ggg act atc cac cta caa tcc ttg aaa gac ctt aaa caa ttt gcc 198
 Gln Gly Thr Ile His Leu Gln Ser Leu Lys Asp Leu Lys Gln Phe Ala
 40 45 50

cca agc cct tcc tgc gag aaa att gaa atc att gct aca ctg aag aat 246
 Pro Ser Pro Ser Cys Glu Lys Ile Glu Ile Ile Ala Thr Leu Lys Asn
 55 60 65

gga gtt caa aca tgt cta aac cca gat tca gca gat gtg aag gaa ctg 294
 Gly Val Gln Thr Cys Leu Asn Pro Asp Ser Ala Asp Val Lys Glu Leu
 70 75 80 85

att aaa aag tgg gag aaa cag gtc agc caa aag aaa aag caa aag aat 342
 Ile Lys Lys Trp Glu Lys Gln Val Ser Gln Lys Lys Lys Gln Lys Asn
 90 95 100

ggg aaa aaa cat caa aaa aag aaa gtt ctg aaa gtt cga aaa tct caa 390
 Gly Lys Lys His Gln Lys Lys Lys Val Leu Lys Val Arg Lys Ser Gln
 105 110 115

cgt tct cgt caa aag aag act aca taagagacca cttcaccaat aagtattctg 444
 Arg Ser Arg Gln Lys Lys Thr Thr
 120 125

tgttaaaaaat gttctatttt aattataaccg ctatcattcc aaaggaggat ggcatataat 504
 acaaaggcctt attaatattga ctagaaaatt taaaacatta ctctgaaatt gtaactaaag 564
 ttagaaaagtt gattttaaga atccaaacgt taagaattgt taaaggctat gattgtcttt 624
 gttctttctac caccaccag ttgaatttca tcatgcttaa ggccatgatt ttagcaatac 684
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 cgagatcctt atcgaaactc atttttaggca aatatgagtt ttattgtccg tttacttgtt 1944
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 gaagtactaa gcgctagagg aagcagccaa gtcggttagt ggaagcatga ttggtgcccc 2064
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<210> 40
 <211> 12
 <212> PRT
 <213> Homo sapiens

<400> 40
 Glu Leu Cys Leu Asp Pro Lys Glu Asn Trp Val Gln
 1 5 10

<210> 41
 <211> 12
 <212> PRT
 <213> Homo sapiens

<400> 41
 Glu Ile Cys Leu Asp Pro Glu Ala Pro Phe Leu Lys
 1 5 10

<210> 42
 <211> 12
 <212> PRT
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<400> 42
 Gln Val Cys Ala Asp Pro Ser Glu Glu Trp Val Gln
 1 5 10

<210> 43
 <211> 12
 <212> PRT
 <213> Homo sapiens

<400> 43
 Gln Val Cys Ala Asp Pro Ser Glu Ser Trp Val Gln
 1 5 10

<210> 44
 <211> 12

<212> PRT
<213> Homo sapiens

<400> 44
Gln Val Cys Ala Asp Pro Ser Glu Ser Trp Val Gln
1 5 10

<210> 45
<211> 125
<212> PRT
<213> Homo sapiens

<400> 45
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1 5 10 15
Leu Ile Gly Val Gln Gly Thr Pro Val Val Arg Lys Gly Arg Cys Ser
20 25 30
Cys Ile Ser Thr Asn Gln Gly Thr Ile His Leu Gln Ser Leu Lys Asp
35 40 45
Leu Lys Gln Phe Ala Pro Ser Pro Ser Cys Glu Lys Ile Glu Ile Ile
50 55 60
Ala Thr Leu Lys Asn Gly Val Gln Thr Cys Leu Asn Pro Asp Ser Ala
65 70 75 80
Asp Val Lys Glu Leu Ile Lys Lys Trp Glu Lys Gln Val Ser Gln Lys
85 90 95
Lys Lys Gln Lys Asn Gly Lys Lys His Gln Lys Lys Lys Val Leu Lys
100 105 110
Val Arg Lys Ser Gln Arg Ser Arg Gln Lys Lys Thr Thr
115 120 125

<210> 46
<211> 128
<212> PRT
<213> Homo sapiens

<400> 46
Met Ser Leu Arg Leu Asp Thr Thr Pro Ser Cys Asn Ser Ala Arg Pro
1 5 10 15
Leu His Ala Leu Gln Val Leu Leu Leu Ser Leu Leu Leu Thr Ala
20 25 30
Leu Ala Ser Ser Thr Lys Gly Gln Thr Lys Arg Asn Leu Ala Lys Gly
35 40 45
Lys Glu Glu Ser Leu Asp Ser Asp Leu Tyr Ala Glu Leu Arg Cys Met
50 55 60
Cys Ile Lys Thr Thr Ser Gly Ile His Pro Lys Asn Ile Gln Ser Leu
65 70 75 80
Glu Val Ile Gly Lys Gly Thr His Cys Asn Gln Val Glu Val Ile Ala
85 90 95
Thr Leu Lys Asp Gly Arg Lys Ile Cys Leu Asp Pro Asp Ala Pro Arg
100 105 110
Ile Lys Lys Ile Val Gln Lys Lys Leu Ala Gly Asp Glu Ser Ala Asp
115 120 125

<210> 47
<211> 96
<212> PRT
<213> Homo sapiens

<400> 47
Met Gln Ile Ile Thr Thr Ala Leu Val Cys Leu Leu Leu Ala Gly Met
1 5 10 15

Trp	Pro	Glu	Asp	Val	Asp	Ser	Lys	Ser	Met	Gln	Val	Pro	Phe	Ser	Arg
			20					25					30		
Cys	Cys	Phe	Ser	Phe	Ala	Glu	Gln	Glu	Ile	Pro	Leu	Arg	Ala	Ile	Leu
		35					40					45			
Cys	Tyr	Arg	Asn	Thr	Ser	Ser	Ile	Cys	Ser	Asn	Glu	Gly	Leu	Ile	Phe
	50					55					60				
Lys	Leu	Lys	Arg	Gly	Lys	Glu	Ala	Cys	Ala	Leu	Asp	Thr	Val	Gly	Trp
65					70					75					80
Val	Gln	Arg	His	Arg	Lys	Met	Leu	Arg	His	Cys	Pro	Ser	Lys	Arg	Lys
				85					90					95	

<210> 48
 <211> 93
 <212> PRT
 <213> Homo sapiens

61

Met	Lys	Ile	Ser	Val	Ala	Ala	Ile	Pro	Phe	Phe	Leu	Leu	Ile	Thr	Ile
1				5					10					15	
Ala	Leu	Gly	Thr	Lys	Thr	Glu	Ser	Ser	Ser	Arg	Gly	Pro	Tyr	His	Pro
			20					25					30		
Ser	Glu	Cys	Cys	Phe	Thr	Tyr	Thr	Tyr	Lys	Ile	Pro	Arg	Gln	Arg	
		35					40				45				
Ile	Met	Asp	Tyr	Tyr	Glu	Thr	Asn	Ser	Gln	Cys	Ser	Lys	Pro	Gly	Ile
	50					55					60				
Val	Phe	Ile	Thr	Lys	Arg	Gly	His	Ser	Val	Cys	Thr	Asn	Pro	Ser	Asp
65					70					75					80
Lys	Trp	Val	Gln	Asp	Tyr	Ile	Lys	Asp	Met	Lys	Glu	Asn			
				85					90						

<210> 49
 <211> 93
 <212> PRT
 <213> Homo sapiens

Met	Gln	Val	Ser	Thr	Ala	Ala	Leu	Ala	Val	Leu	Leu	Cys	Thr	Met	Ala
1				5					10					15	
Leu	Cys	Asn	Gln	Val	Leu	Ser	Ala	Pro	Leu	Ala	Ala	Asp	Thr	Pro	Thr
			20					25					30		
Ala	Cys	Cys	Phe	Ser	Tyr	Thr	Ser	Arg	Gln	Ile	Pro	Gln	Asn	Phe	Ile
		35					40					45			
Ala	Asp	Tyr	Phe	Glu	Thr	Ser	Ser	Gln	Cys	Ser	Lys	Pro	Ser	Val	Ile
	50					55					60				
Phe	Leu	Thr	Lys	Arg	Gly	Arg	Gln	Val	Cys	Ala	Asp	Pro	Ser	Glu	Glu
65					70				75						80
Trp	Val	Gln	Lys	Tyr	Val	Ser	Asp	Leu	Glu	Leu	Ser	Ala			
				85					90						

<210> 50
 <211> 98
 <212> PRT
 <213> Homo sapiens

Met	Lys	Val	Ser	Ala	Val	Leu	Leu	Cys	Leu	Leu	Leu	Met	Thr	Ala	Ala
1				5					10					15	
Phe	Asn	Pro	Gln	Gly	Leu	Ala	Gln	Pro	Asp	Ala	Leu	Asn	Val	Pro	Ser
			20					25					30		
Thr	Cys	Cys	Phe	Thr	Phe	Ser	Ser	Lys	Lys	Ile	Ser	Leu	Gln	Arg	Leu
		35					40					45			

Lys Ser Tyr Val Ile Thr Thr Ser Arg Cys Pro Gln Lys Ala Val Ile
 50 55 60
 Phe Arg Thr Lys Leu Gly Lys Glu Ile Cys Ala Asp Pro Lys Glu Lys
 65 70 75 80
 Trp Val Gln Asn Tyr Met Lys His Leu Gly Arg Lys Ala His Thr Leu
 85 90 95
 Lys Thr

<210> 51
 <211> 839
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (54) ... (344)

61
 <400> 51
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 Lys Val Ser Ala Ala Leu Leu Trp Leu Leu Leu Ile Ala Ala Ala Phe
 5 10 15
 agc ccc cag ggg ctc gct ggg cca gct tct gtc cca acc acc tgc tgc 152
 Ser Pro Gln Gly Leu Ala Gly Pro Ala Ser Val Pro Thr Thr Cys Cys
 20 25 30
 ttt aac ctg gcc aat agg aag ata ccc ctt cag cga cta gag agc tac 200
 Phe Asn Leu Ala Asn Arg Lys Ile Pro Leu Gln Arg Leu Glu Ser Tyr
 35 40 45
 agg aga atc acc agt ggc aaa tgt ccc cag aaa gct gtg atc ttc aag 248
 Arg Arg Ile Thr Ser Gly Lys Cys Pro Gln Lys Ala Val Ile Phe Lys
 50 55 60 65
 acc aaa ctg gcc aag gat atc tgt gcc gac ccc aag aag aag tgg gtg 296
 Thr Lys Leu Ala Lys Asp Ile Cys Ala Asp Pro Lys Lys Lys Trp Val
 70 75 80
 cag gat tcc atg aag tat ctg gac caa aaa tct cca act cca aag cca 344
 Gln Asp Ser Met Lys Tyr Leu Asp Gln Lys Ser Pro Thr Pro Lys Pro
 85 90 95
 taaataatca ccatttttga aaccaaacca gagcctgagt gttgcctaata ttgttttccc 404
 ttcttacaat gcattctgag gtaacctcat tatcagtcca aagggcatgg gttttattat 464
 atatatatat atatattttt ttttaaaaaa aaacgtattg catttaattt attgaggctt 524
 taaaacttat cctccatgaa tatcagttat ttttaaaactg taaagctttg tgcagattct 584
 ttaccccctg ggagcccaa ttcgatcccc tgtcacgtgt gggcaatgtt ccccctctcc 644
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 ttgttcttgt gaacccaaag tgtgactcat taaatggaag taatgttggt ttaggaatac 764
 ataaagtatg tgcataattt attatagtca ctagtgtgaa tttttttgtg ggaaatccac 824
 actgagctga gggggg 839

<210> 52
 <211> 114
 <212> PRT
 <213> Homo sapiens

<400> 52
 Met Ser Leu Leu Ser Ser Arg Ala Ala Arg Val Pro Gly Pro Ser Ser
 1 5 10 15
 Ser Leu Cys Ala Leu Leu Val Leu Leu Leu Leu Thr Gln Pro Gly
 20 25 30
 Pro Ile Ala Ser Ala Gly Pro Ala Ala Ala Val Leu Arg Glu Leu Arg
 35 40 45
 Cys Val Cys Leu Gln Thr Thr Gln Gly Val His Pro Lys Met Ile Ser
 50 55 60
 Asn Leu Gln Val Phe Ala Ile Gly Pro Gln Cys Ser Lys Val Glu Val
 65 70 75 80
 Val Ala Ser Leu Lys Asn Gly Lys Glu Ile Cys Leu Asp Pro Glu Ala
 85 90 95
 Pro Phe Leu Lys Lys Val Ile Gln Lys Ile Leu Asp Gly Gly Asn Lys
 100 105 110
 Glu Asn

<210> 53
 <211> 107
 <212> PRT
 <213> Homo sapiens

<400> 53
 Met Ala Arg Ala Thr Leu Ser Ala Ala Pro Ser Asn Pro Arg Leu Leu
 1 5 10 15
 Arg Val Ala Leu Leu Leu Leu Leu Val Ala Ala Ser Arg Arg Ala
 20 25 30
 Ala Gly Ala Pro Leu Ala Thr Glu Leu Arg Cys Gln Cys Leu Gln Thr
 35 40 45
 Leu Gln Gly Ile His Leu Lys Asn Ile Gln Ser Val Lys Val Lys Ser
 50 55 60
 Pro Gly Pro His Cys Ala Gln Thr Glu Val Ile Ala Thr Leu Lys Asn
 65 70 75 80
 Gly Gln Lys Ala Cys Leu Asn Pro Ala Ser Pro Met Val Lys Lys Ile
 85 90 95
 Ile Glu Lys Met Leu Lys Asn Gly Lys Ser Asn
 100 105

<210> 54
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 54
 Met Asn Pro Ser Ala Ala Val Ile Phe Cys Leu Ile Leu Leu Gly Leu
 1 5 10 15
 Ser Gly Thr Gln Gly Ile Pro Leu Ala Arg Thr Val Arg Cys Asn Cys
 20 25 30
 Ile His Ile Asp Asp Gly Pro Val Arg Met Arg Ala Ile Gly Lys Leu
 35 40 45
 Glu Ile Ile Pro Ala Ser Leu Ser Cys Pro Arg Val Glu Ile Ile Ala
 50 55 60
 Thr Met Lys Lys Asn Asp Glu Gln Arg Cys Leu Asn Pro Glu Ser Lys
 65 70 75 80
 Thr Ile Lys Asn Leu Met Lys Ala Phe Ser Gln Lys Arg Ser Lys Arg
 85 90 95
 Ala Pro

<210> 55
 <211> 1041

<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (18)...(338)

<400> 55
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1 5 10

aat ccc cgg ctc ctg cga gtg gca ctg ctg ctc ctg ctc ctg gta gcc 98
Asn Pro Arg Leu Leu Arg Val Ala Leu Leu Leu Leu Leu Val Ala
15 20 25

gct ggc cgg cgc gca gca gga gcg tcc gtg gcc act gaa ctg cgc tgc 146
Ala Gly Arg Arg Ala Ala Gly Ala Ser Val Ala Thr Glu Leu Arg Cys
30 35 40

cag tgc ttg cag acc ctg cag gga att cac ccc aag aac atc caa agt 194
Gln Cys Leu Gln Thr Leu Gln Gly Ile His Pro Lys Asn Ile Gln Ser
45 50 55

gtg aac gtg aag tcc ccc gga ccc cac tgc gcc caa acc gaa gtc ata 242
Val Asn Val Lys Ser Pro Gly Pro His Cys Ala Gln Thr Glu Val Ile
60 65 70 75

gcc aca ctc aag aat ggg cgg aaa gct tgc ctc aat cct gca tcc ccc 290
Ala Thr Leu Lys Asn Gly Arg Lys Ala Cys Leu Asn Pro Ala Ser Pro
80 85 90

ata gtt aag aaa atc atc gaa aag atg ctg aac agt gac aaa tcc aac 338
Ile Val Lys Lys Ile Ile Glu Lys Met Leu Asn Ser Asp Lys Ser Asn
95 100 105

tgaccagaag ggaggaggaa gctcactggt ggctgttcct gaaggaggcc ctgcccttat 398
aggaacagaa gaggaagag agacacagct gcagaggcca cctggattgt gcctaattgt 458
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tcctattata ttcattcttt ttgaaatgtc aaccccaagt tagttcaatc tggattcata 638
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gagcctgcaa catgccagcc actgtgatag aggctggcgg atccaagcaa atggccaatg 758
agatcattgt gaaggcaggg gaatgtatgt gcacatctgt tttgtaactg tttagatgaa 818
tgtcagttgt tatttattga aatgatttca cagtgtgtgg tcaacatttc tcatgttgaa 878
actttaagaa ctaaaatggt ctaaaatcc cttggacatt ttatgtcttt cttgtaaggc 938
atactgcctt gtttaatggt agttttacag tgtttctggc ttagaacaaa ggggcttaat 998
tattgatggt ttcatagaga atataaaaat aaagcactta tag 1041

<210> 56
<211> 93
<212> PRT
<213> Homo sapiens

<400> 56
Met Asn Ala Lys Val Val Val Val Leu Val Leu Val Leu Thr Ala Leu
1 5 10 15
Cys Leu Ser Asp Gly Lys Pro Val Ser Leu Ser Tyr Arg Cys Pro Cys
20 25 30
Arg Phe Phe Glu Ser His Val Ala Arg Ala Asn Val Lys His Leu Lys
35 40 45

Ile Leu Asn Thr Pro Asn Cys Ala Leu Gln Ile Val Ala Arg Leu Lys
 50 55 60
 Asn Asn Asn Arg Gln Val Cys Ile Asp Pro Lys Leu Lys Trp Ile Gln
 65 70 75 80
 Glu Tyr Leu Glu Lys Ala Leu Asn Lys Arg Phe Lys Met
 85 90

<210> 57
 <211> 107
 <212> PRT
 <213> Homo sapiens

<400> 57
 Met Ala Arg Ala Ala Leu Ser Ala Ala Pro Ser Asn Pro Arg Leu Leu
 1 5 10 15
 Arg Val Ala Leu Leu Leu Leu Leu Val Ala Ala Gly Arg Arg Ala
 20 25 30
 Ala Gly Ala Ser Val Ala Thr Glu Leu Arg Cys Gln Cys Leu Gln Thr
 35 40 45
 Leu Gln Gly Ile His Pro Lys Asn Ile Gln Ser Val Asn Val Lys Ser
 50 55 60
 Pro Gly Pro His Cys Ala Gln Thr Glu Val Ile Ala Thr Leu Lys Asn
 65 70 75 80
 Gly Arg Lys Ala Cys Leu Asn Pro Ala Ser Pro Ile Val Lys Lys Ile
 85 90 95
 Ile Glu Lys Met Leu Asn Ser Asp Lys Ser Asn
 100 105

<210> 58
 <211> 1560
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (102)...(398)

<400> 58
 ctccataagg cacaaacttt cagagacagc agagcacaca agcttctagg acaagagcca 60
 ggaagaaacc accggaagga accatctcac tgtgtgtaaa c atg act tcc aag ctg 116
 Met Thr Ser Lys Leu
 1 5
 gcc gtg gct ctc ttg gca gcc ttc ctg att tct gca gct ctg tgt gaa 164
 Ala Val Ala Leu Leu Ala Ala Phe Leu Ile Ser Ala Ala Leu Cys Glu
 10 15 20
 ggt gca gtt ttg cca agg agt gct aaa gaa ctt aga tgt cag tgc ata 212
 Gly Ala Val Leu Pro Arg Ser Ala Lys Glu Leu Arg Cys Gln Cys Ile
 25 30 35
 aag aca tac tcc aaa cct ttc cac ccc aaa ttt atc aaa gaa ctg aga 260
 Lys Thr Tyr Ser Lys Pro Phe His Pro Lys Phe Ile Lys Glu Leu Arg
 40 45 50
 gtg att gag agt gga cca cac tgc gcc aac aca gaa att att gta aag 308
 Val Ile Glu Ser Gly Pro His Cys Ala Asn Thr Glu Ile Ile Val Lys
 55 60 65
 ctt tct gat gga aga gag ctc tgt ctg gac ccc aag gaa aac tgg gtg 356
 Leu Ser Asp Gly Arg Glu Leu Cys Leu Asp Pro Lys Glu Asn Trp Val
 70 75 80 85

cag agg gtt gtg gag aag ttt ttg aag agg gct gag aat tca 398
 Gln Arg Val Val Glu Lys Phe Leu Lys Arg Ala Glu Asn Ser
 90 95

taaaaaaatt cattctctgt ggtatccaag aatcagtgaa gatgccagtg aaacttcaag 458
 caaatctact tcaacacttc atgtattgtg tgggtctgtt gtagggttgc cagatgcaat 518
 acaagattcc tggttaaatt tgaatttcag taaacaatga atagtttttc attgtaccat 578
 gaaatatcca gaacatactt atatgtaaag tattattttat ttgaatctac aaaaaacaac 638
 aaataatttt taaatataag gattttccta gatattgcac gggagaatat acaaatagca 698
 aaattggggc aagggccaag agaatatccg aactttaatt tcaggaattg aatgggtttg 758
 ctagaatgtg atatttgaag catcacataa aaatgatggg acaataaatt ttgccataaa 818
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 aaaaagtatt agccaccatc ttacctcaca gtgatgttgt gaggacatgt ggaagcactt 998
 taagtttttt catcataaca taaattattt tcaagtgtaa cttattaacc tattttattat 1058
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 agccaaaact ccacagtcaa tattagtaat ttcttgctgg ttgaaacttg tttattatgt 1478
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 ttttaacttt aaaaaaac gg 1560

<210> 59
 <211> 15
 <212> PRT
 <213> Homo sapiens

<400> 59
 Asn Leu Gln Val Phe Ala Ile Gly Pro Gln Cys Ser Lys Val Glu
 1 5 10 15

<210> 60
 <211> 14
 <212> PRT
 <213> Homo sapiens

<400> 60
 Val Asp Tyr Tyr Glu Thr Ser Ser Leu Cys Ser Gln Pro Ala
 1 5 10

<210> 61
 <211> 15
 <212> PRT
 <213> Homo sapiens

<400> 61
 Val Asp Tyr Tyr Glu Thr Ser Ser Leu Cys Ser Gln Pro Ala Val
 1 5 10 15

<210> 62
 <211> 15
 <212> PRT
 <213> Homo sapiens

<400> 62
 Glu Ser Tyr Arg Arg Ile Thr Asn Ile Gln Cys Pro Lys Glu Ala
 1 5 10 15

<210> 63
<211> 15
<212> PRT
<213> Homo sapiens

<400> 63
Glu Ser Tyr Arg Arg Thr Thr Ser Ser His Cys Pro Arg Glu Ala
1 5 10 15

<210> 64
<211> 15
<212> PRT
<213> Homo sapiens

<400> 64
Lys Ser Tyr Val Ile Thr Thr Ser Arg Cys Pro Gln Lys Ala Val
1 5 10 15

<210> 65
<211> 12
<212> PRT
<213> Homo sapiens

<400> 65
Glu Ile Cys Ala Asp Pro Lys Glu Lys Trp Val Gln
1 5 10

<210> 66
<211> 12
<212> PRT
<213> Homo sapiens

<400> 66
Glu Ile Cys Ala Asp Pro Thr Gln Lys Trp Val Gln
1 5 10

<210> 67
<211> 12
<212> PRT
<213> Homo sapiens

<400> 67
Glu Ile Cys Ala Asp Pro Lys Glu Arg Trp Val Arg
1 5 10

<210> 68
<211> 16
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (1)...(16)
<223> Xaa = any amino acid

<400> 68
Met Ile Cys Ala Asp Pro Lys Xaa Ala Ala Xaa Ala Ala Trp Val Gln
1 5 10 15

<210> 69
<211> 15
<212> PRT

<213> Homo sapiens

<400> 69

Ser Val Asn Val Lys Ser Pro Gly Pro His Cys Ala Gln Thr Glu
1 5 10 15

<210> 70

<211> 15

<212> PRT

<213> Homo sapiens

<400> 70

Ser Val Lys Val Lys Ser Pro Gly Pro His Cys Ala Gln Thr Glu
1 5 10 15

<210> 71

<211> 15

<212> PRT

<213> Homo sapiens

<400> 71

Ser Val Asn Val Arg Ser Pro Gly Pro His Cys Ala Gln Thr Glu
1 5 10 15

<210> 72

<211> 12

<212> PRT

<213> Homo sapiens

<400> 72

Lys Ala Cys Leu Asn Pro Ala Ser Pro Ile Val Lys
1 5 10

<210> 73

<211> 12

<212> PRT

<213> Homo sapiens

<400> 73

Lys Ala Cys Leu Asn Pro Ala Ser Pro Met Val Lys
1 5 10

<210> 74

<211> 12

<212> PRT

<213> Homo sapiens

<400> 74

Lys Ala Cys Leu Asn Pro Ala Ser Pro Met Val Gln
1 5 10

<210> 75

<211> 12

<212> PRT

<213> Homo sapiens

<400> 75

Lys Ser Tyr Lys Ile Ile Thr Ser Ser Lys Cys Pro
1 5 10

<210> 76

<211> 661

<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (32)...(331)

<400> 76
tcaaactgaa gctcgcactc tcgcctccag c atg aaa gtc tct gcc gcc ctt 52
Met Lys Val Ser Ala Ala Leu
1 5

ctg tgc ctg ctg ctc ata gca gcc acc ttc att ccc caa ggg ctc gct 100
Leu Cys Leu Leu Leu Ile Ala Ala Thr Phe Ile Pro Gln Gly Leu Ala
10 15 20

cag cca gat gca atc aat gcc cca gtc acc tgc tgc tat aac ttc acc 148
Gln Pro Asp Ala Ile Asn Ala Pro Val Thr Cys Cys Tyr Asn Phe Thr
25 30 35

aat agg aag atc tca gtg cag agg ctc gcg agc tat aga aga atc acc 196
Asn Arg Lys Ile Ser Val Gln Arg Leu Ala Ser Tyr Arg Arg Ile Thr
40 45 50 55

agc agc aag tgt ccc aaa gaa gct gtg atc ttc aag acc att gtg gcc 244
Ser Ser Lys Cys Pro Lys Glu Ala Val Ile Phe Lys Thr Ile Val Ala
60 65 70

aag gag atc tgt gct gac ccc aag cag aag tgg gtt cag gat tcc atg 292
Lys Glu Ile Cys Ala Asp Pro Lys Gln Lys Trp Val Gln Asp Ser Met
75 80 85

gac cac ctg gac aag caa acc caa act ccg aag act tga acactcactc 341
Asp His Leu Asp Lys Gln Thr Gln Thr Pro Lys Thr *
90 95

cacaacccaa gaatctgcag ctaacttatt ttcccctagc tttccccaga catcctgttt 401
tattttatta taatgaattt tgtttggtga tgtgaaacat tatgccttaa gtaatgttaa 461
ttcttattta agttattgat gttttaagtt tatctttcat ggtactagtg ttttttagat 521
acagagactt ggggaaattg cttttcctct tgaaccacag ttctaccctt gggatgtttt 581
gagggtcttt gcaagaatca tttttttaac attccaatgc atttaataca aagaattgct 641
aaaatattat tgtggaaatg 661

<210> 77
<211> 1847
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (80)...(346)

<400> 77
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ccgcccgcgc gccgcgcgc atg aac gcc aag gtc gtg gtc ctg ctg gtc ctc 112
Met Asn Ala Lys Val Val Val Val Leu Val Leu
1 5 10

gtg ctg acc gcg ctc tgc ctc agc gac ggg aag ccc gtc agc ctg agc 160
Val Leu Thr Ala Leu Cys Leu Ser Asp Gly Lys Pro Val Ser Leu Ser
15 20 25

tac aga tgc cca tgc cga ttc ttc gaa agc cat gtt gcc aga gcc aac 208
Tyr Arg Cys Pro Cys Arg Phe Phe Glu Ser His Val Ala Arg Ala Asn
30 35 40

gtc aag cat ctc aaa att ctc aac act cca aac tgt gcc ctt cag att 256
Val Lys His Leu Lys Ile Leu Asn Thr Pro Asn Cys Ala Leu Gln Ile
45 50 55

gta gcc cgg ctg aag aac aac aac aga caa gtg tgc att gac ccg aag 304
Val Ala Arg Leu Lys Asn Asn Asn Arg Gln Val Cys Ile Asp Pro Lys
60 65 70 75

cta aag tgg att cag gag tac ctg gag aaa gct tta aac aag 346
Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn Lys
80 85

61
taagcacaac agccaaaaag gactttccgc tagaccact cgaggaaaac taaaaccttg 406
tgagagatga aagggcaaa acgtggggga gggggcctta accatgagga ccaggtgtgt 466
gtgtgggggtg ggcacattga tctgggatcg ggcctgaggt ttgcagcatt tagaccctgc 526
atttatagca tacggtatga tattgcagct tatattcatc catgccctgt acctgtgcac 586
gttggaactt ttattacttg ggtttttcta agaaagaaat tgtattatca acagcatttt 646
caagcagtta gttccttcac gatcatcaca atcatcatca ttctcattct cattttttta 706
atcaacgagt acttcaagat ctgaatttgg cttgtttgga gcatctcctc tgcctccctg 766
gggagtctgg gcacagtcag gtgggtggctt aacagggagc tggaaaaagt gtcctttctt 826
cagacactga ggctcccga gcagcgcccc tccaagagg aaggcctctg tggcactcag 886
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ccagctattc ctactctctc cccgactccg agagcatgct taatcttctg tctgcttctc 1066
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tttggcctcc tccagaatgg agctggccct ctctgggga tgtgtaatgg tccccctgct 1246
taccgcgaaa agacaagtct ttacagaatc aaatgcaatt ttaaactctga gagctcgctt 1306
gagtgcactg gtttgtgatt gcctctgaag cctatgtatg ccatggaggc actaacaac 1366
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ccccctctg aagccacagc aggggttcag gttccaatca gaactgttgg caaggtgaca 1486
tttccatgca tagatgcat ccacagaagg tctgtgtgtg atttgtaact ttttgcaagg 1546
cattttttta tatatatatt tgtgcacatt tttttttacg attctttaga aaacaaatgt 1606
atttcaaaat atatttatag tcgaacaagt catatatg aatgagagcc atatgaatgt 1666
cagtagttta tacttctcta ttatctcaaa ctactggcaa tttgtaaaga aatatatatg 1726
atatataaat gtgattgcag cttttcaatg ttagccacag tgtatttttt cacttgact 1786
aaaattgtat caaatgtgac atttatatgca ctagcaataa aatgctaatt gtttcatggt 1846
a 1847

<210> 78
<211> 1160
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (27) ... (299)

<400> 78
cctccgacag cctctccaca ggtacc atg aag gtc tcc gcg gca cgc etc gct 53
Met Lys Val Ser Ala Ala Arg Leu Ala
1 5

gtc atc etc att gct act gcc etc tgc gct cct gca tct gcc tcc cca 101
Val Ile Leu Ile Ala Thr Ala Leu Cys Ala Pro Ala Ser Ala Ser Pro
10 15 20 25

tat tcc tcg gac acc aca ccc tgc tgc ttt gcc tac att gcc cgc cca	149
Tyr Ser Ser Asp Thr Thr Pro Cys Cys Phe Ala Tyr Ile Ala Arg Pro	
30 35 40	
ctg ccc cgt gcc cac atc aag gag tat ttc tac acc agt ggc aag tgc	197
Leu Pro Arg Ala His Ile Lys Glu Tyr Phe Tyr Thr Ser Gly Lys Cys	
45 50 55	
tcc aac cca gca gtc gtc ttt gtc acc cga aag aac cgc caa gtg tgt	245
Ser Asn Pro Ala Val Val Phe Val Thr Arg Lys Asn Arg Gln Val Cys	
60 65 70	
gcc aac cca gag aag aaa tgg gtt cgg gag tac atc aac tct ttg gag	293
Ala Asn Pro Glu Lys Lys Trp Val Arg Glu Tyr Ile Asn Ser Leu Glu	
75 80 85	
atg agc taggatggag agtccttgaa cctgaactta cacaaatttg cctgtttctg	349
Met Ser	
90	

61

cttgcctcttg tcttagcttg ggaggcttcc cctcactatc ctaccccacc cgctccttga	409
agggcccaga ttctgaccac gacgagcagc agttacaaaa accttcccca ggctggacgt	469
ggtggctcag ccttgtaatc ccagcacttt gggaggccaa ggtgggtgga tcacttgagg	529
tcaggagttc gagacagcct ggccaacatg atgaaacccc atgtgtacta aaaatacaaa	589
aaattagccg ggctgtgtag cgggcgcctg tagtcccagc tactcgggag gctgaggcag	649
gagaatggcg tgaacccggg agcggagctt gcagttagcc gagatcgcg cactgcactc	709
cagcctgggc gacagagcga gactccgtct caaaaaaaaa aaaaaaaaaa aaaaaatac	769
aaaaattagc cgcgtggtgg ccacgcctg taatcccagc tactcgggag gctaaggcag	829
gaaaattggt tgaacccagg aggtggaggc tgcagttagc tgagattgtg ccacttcact	889
ccagcctggg tgacaaagt agactccgtc acaacaacaa caacaaaaag cttccccaac	949
taaagcctag aagagcttct gaggcgtgc tttgtcaaaa ggaagtctct aggttctgag	1009
ctctggcttt gccttgctt tgcaagggtc ctgtgacaag gaaggaagtc agcatgcctc	1069
tagaggcaag gaaggaggga aactgcact cttaagcttc cgccgtctca acccctcaca	1129
ggagcttact ggcaaacatg aaaaatcggg g	1160

<210> 79
 <211> 696
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (109)...(384)

<400> 79	
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tgagttctgc agctcacct ctgagaaaac ctcttttcca ccaatacc atg aag ctc	117
Met Lys Leu	
1	

tgc gtg act gtc ctg tct ctc ctc atg cta gta gct gcc ttc tgc tct	165
Cys Val Thr Val Leu Ser Leu Leu Met Leu Val Ala Ala Phe Cys Ser	
5 10 15	

cca gcg ctc tca gca cca atg ggc tca gac cct ccc acc gcc tgc tgc	213
Pro Ala Leu Ser Ala Pro Met Gly Ser Asp Pro Pro Thr Ala Cys Cys	
20 25 30 35	

ttt tct tac acc gcg agg aag ctt cct cgc aac ttt gtg gta gat tac	261
Phe Ser Tyr Thr Ala Arg Lys Leu Pro Arg Asn Phe Val Val Asp Tyr	
40 45 50	

tat gag acc agc agc ctc tgc tcc cag cca gct gtg gta ttc caa acc	309
Tyr Glu Thr Ser Ser Leu Cys Ser Gln Pro Ala Val Val Phe Gln Thr	
55 60 65	

aaa aga agc aag caa gtc tgt gct gat ccc agt gaa tcc tgg gtc cag	357
Lys Arg Ser Lys Gln Val Cys Ala Asp Pro Ser Glu Ser Trp Val Gln	
70 75 80	

gag tac gtg tat gac ctg gaa ctg aac tgagctgctc agagacagga	404
Glu Tyr Val Tyr Asp Leu Glu Leu Asn	
85 90	

agtcttcagg gaaggtcacc tgagcccga tgcttctcca tgagacacat ctctccata	464
ctcaggactc ctctccgcag ttctgtccc ttctcttaat ttaatctttt ttatgtgccg	524
tggtattgta ttaggtgtca tttccattat ttatattagt ttagccaaag gataagtgtc	584
ctatggggat ggtccactgt cactgtttct ctgctgttgc aaatacatgg ataacacatt	644
tgattctgtg tgttttccat aataaaaactt taaaataaaa tgcagacagt ta	696

<210> 80
 <211> 2738
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (123)...(353)

<400> 80	
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aggtttctgc agcgcttctg tgccgtgctgc tcatggcagc cactttcagc cctcagggac	120
tt gct cag cca gat tca gtt tcc att cca atc acc tgc tgc ttt aac	167
Ala Gln Pro Asp Ser Val Ser Ile Pro Ile Thr Cys Cys Phe Asn	
1 5 10 15	

gtg atc aat agg aaa att cct atc cag agg ctg gag agc tac aca aga	215
Val Ile Asn Arg Lys Ile Pro Ile Gln Arg Leu Glu Ser Tyr Thr Arg	
20 25 30	

atc acc aac atc caa tgt ccc aag gaa gct gtg atc ttc aag acc caa	263
Ile Thr Asn Ile Gln Cys Pro Lys Glu Ala Val Ile Phe Lys Thr Gln	
35 40 45	

cgg ggc aag gag gtc tgt gct gac ccc aag gag aga tgg gtc agg gat	311
Arg Gly Lys Glu Val Cys Ala Asp Pro Lys Glu Arg Trp Val Arg Asp	
50 55 60	

tcc atg aag cat ctg gac caa ata ttt caa aat ctg aag cca	353
Ser Met Lys His Leu Asp Gln Ile Phe Gln Asn Leu Lys Pro	
65 70 75	

tgagccttca tacatggact gagagtcaga gcttgaagaa aagcttattt attttcccca	413
acctcccca ggtgcagtgt gacattattt tattataaca tccacaaaga gattattttt	473
aaataattta aagcataata tttcttaaaa agtattttaat tatattttaag ttgttgatgt	533
tttaactcta tctgtcatat atcctagtga atgtaaaatg caaaatcctg gtgatgtgtt	593
ttttgttttt gttttcctgt gagctcaact aagttcacgg caaaatgtca ttgttctccc	653
tctacactgt ctgtagtgtt gtgggggtcct cccatggatc atcaagggtga aacactttgg	713
tattcttttg caatcagtg cctgttaagt caaatgtgtg ctttgtactg ctgttggtga	773
aattgatgtt actgtatata actatggaat tttgaaaaaa aatttcaaaa agaaaaaaat	833
atatataatt taaaactaag aaaaaaaaaa aaaaaaaaaa aaaaagggtt ctattgactt	893
gggttaatcg tgtgaccgcg gtggctggca cgaaattgac caaccctggg gttagtatag	953
cttagttaa ctttcgttta ttgctaaagg ttaatcactg ctgtttcccg tgggggtgtg	1013
gctaggctaa gcgttttgag ctgcattgct gcgtgcttga tgcttgtccc ttttgatcgt	1073

ggtgatttag aggggtgaact cactggaatg gggatgcttg catgtgtaat cttactaaga 1133
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 aatatgagct ttatgtaata atgtgaatca tgggttttct tagtagattt taaaagttat 1673
 taatatttta atttaatctt ccatggattt tgggtgggtt tgaacataaa gccttggatg 1733
 tatatgtcat ctcagtgtctg taaaaactgt gggatgctcc tcccttctct acctcatggg 1793
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 atgtccctat ggaagcatat tgttattata taattacata ttgcatatg tatgactccc 1913
 aaattttcac ataaaataga tttttgtata acaaaaaaaaa aaaaaaaaaa aaggacacgg 1973
 gcagcagaca gtggtcagtc ctttcttggc tctgctgaca ctcgagccca cattccgtca 2033
 cctgctcaga atcatgcagg tctccactgc tgcccttgcg gtccctctct gcaccatggc 2093
 tctctgcaac cagttctctg catcacttgc tgctgacacg ccgaccgcct gctgcttcag 2153
 ctacacctcc cggcagattc cacagaattt catagctgac tactttgaga cgagcagcca 2213
 gtgctccaag cccggtgtca tcttcctaac caagcgaagc cggcaggtct gtgctgacct 2273
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 gaagcttcga ggcccagcga cctcgggtggg cccagtgggg aggagcagga gcctgagcct 2393
 tgggaacctg cgtgtgacct ccacagctac ctcttctatg gactgggtgt tgccaaacag 2453
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 aatttatatt cgatttcaca gtgtgtttgt gattgtttgc tctgagagtt cccctgtccc 2573
 ctcccccttc cctcacaccg cgtctggtga caaccgagt gctgtcatca gcctgtgtag 2633
 gcagtcatgg caccaaagcc accagactga caaatgtgta tcggatgctt ttgttcaggg 2693
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<210> 81
 <211> 1085
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (329) ... (625)

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 tcccgtgggg gtgtggctag gctaagcgtt ttgagctgca ttgctgcgtg cttgatgctt 180
 gtcccttttg atcgtggtga tttagagggt gaactcactg gaatgggat gcttgcattg 240
 gtaattcttac taagagctaa tagaaaggct aggaccaaac cagaaacctc caattctcat 300
 gtggaagccc atgccctcac cctccaac atg aaa gcc tct gca gca ctt ctg 352

Met Lys Ala Ser Ala Ala Leu Leu

1

5

tgt ctg ctg ctc aca gca gct gct ttc agc ccc cag ggg ctt gct cag 400
 Cys Leu Leu Leu Thr Ala Ala Ala Phe Ser Pro Gln Gly Leu Ala Gln
 10 15 20

cca gtt ggg att aat act tca act acc tgc tgc tac aga ttt atc aat 448
 Pro Val Gly Ile Asn Thr Ser Thr Thr Cys Cys Tyr Arg Phe Ile Asn
 25 30 35 40

aag aaa atc cct aag cag agg ctg gag agc tac aga agg acc acc agt 496
 Lys Lys Ile Pro Lys Gln Arg Leu Glu Ser Tyr Arg Arg Thr Thr Ser
 45 50 55

agc cac tgt ccc cgg gaa gct gta atc ttc aag acc aaa ctg gac aag 544
 Ser His Cys Pro Arg Glu Ala Val Ile Phe Lys Thr Lys Leu Asp Lys
 60 65 70

gag atc tgt gct gac ccc aca cag aag tgg gtc cag gac ttt atg aag 592
 Glu Ile Cys Ala Asp Pro Thr Gln Lys Trp Val Gln Asp Phe Met Lys
 75 80 85

cac ctg gac aag aaa acc caa act cca aag ctt tgaacattca tgactgaact 645
 His Leu Asp Lys Lys Thr Gln Thr Pro Lys Leu
 90 95

gaaaacaagc catgacttga gaaacaaata atttgatac cctgtccttt ctgagagtgg 705
 ttctgagatt attttaatct aattctaagg aatatgagct ttatgtaata atgtgaatca 765
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 tgggtgggttt tgaacataaa gccttggatg tatatgtcat ctgagtgctg taaaaactgt 885
 gggatgctcc tcccttctct acctcatggg ggtattgtat aagtccttgc aagaatcagt 945
 gcaaagattt gctttaattg ttaagatatg atgtccctat ggaagcatat tgttattata 1005
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<210> 82
 <211> 775
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (84) ... (359)

<400> 82
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 cattccgtca cctgctcaga atc atg cag gtc tcc act gct gcc ctt gct gtc 113
 Met Gln Val Ser Thr Ala Ala Leu Ala Val
 1 5 10

ctc ctc tgc acc atg gct ctc tgc aac cag ttc tct gca tca ctt gct 161
 Leu Leu Cys Thr Met Ala Leu Cys Asn Gln Phe Ser Ala Ser Leu Ala
 15 20 25

gct gac acg ccg acc gcc tgc tgc ttc agc tac acc tcc cgg cag att 209
 Ala Asp Thr Pro Thr Ala Cys Cys Phe Ser Tyr Thr Ser Arg Gln Ile
 30 35 40

cca cag aat ttc ata gct gac tac ttt gag acg agc agc cag tgc tcc 257
 Pro Gln Asn Phe Ile Ala Asp Tyr Phe Glu Thr Ser Ser Gln Cys Ser
 45 50 55

aag ccc ggt gtc atc ttc cta acc aag cga agc cgg cag gtc tgt gct 305
 Lys Pro Gly Val Ile Phe Leu Thr Lys Arg Ser Arg Gln Val Cys Ala
 60 65 70

gac ccc agt gag gag tgg gtc cag aaa tat gtc agc gac ctg gag ctg 353
 Asp Pro Ser Glu Glu Trp Val Gln Lys Tyr Val Ser Asp Leu Glu Leu
 75 80 85 90

agt gcc tgaggggtcc agaagcttcg aggcccagcg acctcggtgg gccagtgagg 409
 Ser Ala

gaggagcagg agcctgagcc ttgggaacat gcgtgtgacc tccacagcta cctcttctat 469
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 ggctgtcatc agcctgtgta ggcagtcattg gcaccaaagc caccagactg acaaattgtgt 709
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 aaagggt 775

<210> 83
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 83
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 Phe Asn Pro Gln Gly Leu Ala Gln Pro Asp Ala Leu Asn Val Pro Ser
 20 25 30
 Thr Cys Cys Phe Thr Phe Ser Ser Lys Lys Ile Ser Leu Gln Arg Leu
 35 40 45
 Lys Ser Tyr Val Ile Thr Thr Ser Arg Cys Pro Gln Lys Ala Val Ile
 50 55 60
 Phe Arg Thr Lys Leu Gly Lys Glu Ile Cys Ala Asp Pro Lys Glu Lys
 65 70 75 80
 Trp Val Gln Asn Tyr Met Lys His Leu Gly Arg Lys Ala His Thr Leu
 85 90 95
 Lys Thr

<210> 84
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> A region within a peptide of a chemokine, a variant, or a derivative thereof.

<221> SITE
 <222> 1
 <223> Xaa is Ala or Leu

<221> SITE
 <222> 4
 <223> Xaa is Lys, Ser or Thr

<221> SITE
 <222> 5
 <223> Xaa is any amino acid

<221> SITE
 <222> 6
 <223> Xaa is Lys, Glu, Ser or Arg

<221> SITE
 <222> 8
 <223> Xaa is Val or Ile

<400> 84
 Xaa Asp Pro Xaa Xaa Xaa Trp Xaa Gln
 1 5

<210> 85
 <211> 10

<212> PRT
<213> Artificial Sequence

<220>
<223> A chemokine variant

61
<400> 85
Cys Leu Asp Pro Lys Gln Lys Trp Ile Gln
1 5 10
